

REMARKS

Claims 1 – 10 are pending in the above-identified application. In the Office Action of March 15, 2006, claims 1 – 10 were rejected. Reconsideration is respectfully requested in view of the following remarks.

Rejection of Claims 1 – 10 under 35 U.S.C. §103 over McVeigh, Jr.

At page 2 of the Office Action, claims 1 - 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants' Prior Art Figures 1 - 2 in view of McVeigh, Jr. et al. (U.S. Patent 4,707,421). The Examiner alleged that Applicants in Prior Art Figures 1 - 2 disclose a battery unit comprising: an electrode unit comprising a positive electrode plate, a separator, and a negative electrode plate, wherein the positive electrode plate, the separator, and the negative electrode plate are disposed in sequential order; electrode leads extending from each of the positive and negative electrode plates of the electrode unit; and a finishing tape (insulating member 21) provided on an outermost surface of the electrode unit (paragraphs [0004] – [0014]). The Examiner acknowledges that the Applicants' Prior Art Figures 1 and 2 do not disclose a finishing tape comprising an adhesive layer having a low adhesive strength, and a polymer film layer coated with the adhesive layer, wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming. The Examiner alleges that McVeigh, Jr. et al. in Figure 1 discloses a finishing tape comprising an adhesive layer having a low adhesive strength, and a polymer film layer coated with the adhesive layer, wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming. The Examiner alleges that because McVeigh, Jr. et al. discloses an adhesive layer (i.e. acrylic or acryl-based) that is chemically the same as that instantly disclosed, it obviously would have provided a low adhesive strength. Further, the Examiner alleges that because McVeigh, Jr. et al. disclose a polymer film layer coated with the adhesive layer that is allegedly chemically the same as that instantly disclosed, it obviously would provided a finishing tape that is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming. The Examiner takes the position that it would have been obvious to one of ordinary skill in the art at the time he invention was made to have substituted the tape with the film of McVeigh, Jr. et al. on the alleged grounds that McVeigh, Jr. et al. teach a film that would have eliminated or minimized problems associated with voltage reversal and provided a battery with maximum volumetric capacity thereby improving the overall life and performance of the battery.

For the following reasons, this rejection is respectfully traversed and reconsideration is

requested.

Independent claim 1 is directed to a battery unit and requires, among other features, a finishing tape provided on an outermost surface of the electrode unit, comprising an adhesive layer having a low adhesive strength, and a polymer film layer coated with the adhesive layer, wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming. As discussed in the specification at paragraph [0035], for example, such deforming of the electrode unit may occur during injection of electrolyte or during charging/discharging of the electrode unit. Independent claim 6 is directed to a lithium secondary battery and also requires, among other features, the finishing tape on an outermost surface of the electrode unit, comprising an adhesive layer having a low adhesive strength, and wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming.

Contrary to what is alleged by the Examiner, the Applicants' description of prior art does not include a disclosure of a finishing tape provided on an outermost surface of an electrode unit. In paragraph [0013] of the present application, in describing a jelly-roll type electrode unit 11 of the prior art, it is stated that an "insulating member 21" is wrapped around the outermost surface of the electrode unit in order to prevent the electrode unit from being unwound due to its intrinsic restoring force. Neither the composition nor the character of the insulating member 21 is further described, except that paragraph [0017] of the application further describes that the insulating member 21 prevents positional deformation (but not distortion) of the electrode unit. The application does not state that the insulating member 21 of the prior art is a finishing tape. Thus, the allegation by the Examiner that the Applicants' description of prior art includes a disclosure of "a finishing tape (insulating member 21)" has no basis.

Moreover, contrary to what is alleged by the Examiner, McVeigh, Jr. et al. does not describe a finishing tape that is detachably attached to an electrode unit so as to detach in response to the electrode unit deforming. Rather, in the passages cited by the Examiner (col. 3, lines 20 – 33 and col.3, line 67 – col. 4, line 4), McVeigh, Jr. et al. describes only that an ionically impermeable film is wrapped around the outside of a spirally wound electrode package to prevent cell can corrosion products from diffusing to the outside wrap of the anode and causing a short. (Actually, McVeigh, Jr. et al. describes two ionically impermeable films. The first film, described at col. 3, lines 20 – 33 of McVeigh, Jr. et al. covers an end of the cathode to prevent problems resulting from voltage reversal. This film has no relevance whatsoever to the present invention.) Contrary to what is alleged by the Examiner, McVeigh, Jr. does not describe an

adhesive layer having low adhesive strength and does not describe an adhesive layer that is "chemically the same" as the claimed adhesive layer. Rather, McVeigh, Jr. et al. merely describes its adhesives in terms of broad categories, stating that suitable adhesives include acrylic, silicone or rubber. Moreover, since the film described in McVeigh, Jr. et al. is described only as serving a protective role to prevent cell can corrosion products from diffusing to the outside wrap of the anode and causing a detrimental short, it would clearly defeat the purpose of the McVeigh, Jr. et al. film to have an adhesive that does not firmly adhere. Therefore, there would be no motivation to select a low adhesive strength adhesive out of the broad categories of adhesives described by McVeigh, Jr. et al. and there is no motivation to select a low adhesive strength adhesive for any structure allegedly described in Applicants' description of prior art. Therefore, independent claims 1 and 6 are not obvious over Applicants' Figures 1 – 2 or McVeigh, Jr., et al., singly or combined. Dependent claims 2 – 5 and 7 – 10 are allowable as dependent from allowable claims 1 and 6. Therefore, the rejection should be withdrawn.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

Date: _____

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By: _____

Hung H. Bui

Hung H. Bui
Registration No. 40,415

1400 Eye St., NW
Suite 300
Washington, D.C. 20005
Telephone: (202) 216-9505
Facsimile: (202) 216-9510